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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/613,486	07/11/2000	Hai-Ying Zhu	07678/062004	9740

7590  
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11/19/2003

EXAMINER
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KAUSHAL, SUMESH

ART UNIT	PAPER NUMBER
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1636

DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Applicati n No.</b>	<b>Applicant(s)</b>	
	09/613,486	BARRA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sumesh Kaushal Ph.D.	1636	

**-- The MAILING DATE of this communication appears on the cover sheet with th correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3,19-27 and 57 is/are pending in the application.
- 4a) Of the above claim(s) 19-24,26 and 27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3,5,7-9 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

*Claims 3, 5, 7-9 and 25 are examined in this office action.*

► *Applicants are required to follow Amendment Practice under revised 37 CFR §1.121 (<http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/revamdtpprac.htm>). The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9306.*

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/20/03 has been entered.

### ***Election/Restrictions***

Applicant's election with traverse of Group I claims 3, 5, 7-9 and 25 wherein the elected nucleotide sequence is of SEQ ID NO:15 in Paper No. 09/15/03 is acknowledged. The traversal is on the ground(s) that nucleic acid sequences encoding proteins and polypeptide having the sequence of SEQ ID NO: 3, 5, 7, 9, 11, 13, 15, 17 and 19 are all contained in one contiguous grapevine leafroll virus. This is not found persuasive because

there exists a search burden to examine all the claimed nucleotide sequences as a single invention. Furthermore the nucleotides sequences of SEQ ID NO: 3, 5, 7, 9, 11, 13, 15, 17 and 19 are structurally distinct nucleotides sequences, which encodes functionally distinct polypeptides. For example the nucleic acid sequences of SEQ ID NO:5 encodes a RNA dependent RNA polymerase which is structurally and functionally distinct polypeptide when compared to nucleic acid sequences of SEQ ID NO:15 which encodes a coat protein. In addition search of SEQ ID NO:5 is not required for SEQ ID NO:15. Therefore there exist a serious burden to examine all the claimed nucleic acid sequences as single invention.

The requirement is still deemed proper and is therefore made FINAL.

Claims 19-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 09/15/03.

### ***Double Patenting***

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467,

114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 3 and 25 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 6 of prior U.S. Patent No. 6,197,948 (*ref of record on PTO-1449*). This is a double patenting rejection.

Claims 3 and 25 of instant application are drawn to nucleic acid sequence encoding the amino acid sequences of SEQ ID NO:15, which is identical to the nucleic acid encoding the amino acid sequences of claimed in U.S. Patent No. 6,197,948 (see attached PTO sequence search report 11/10/03).

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 5, 7-9 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 5-6 of U.S. Patent No. 6,197,948 in view of Le Gall et al (Plant Science 102;161-170, 1994, *ref of record on PTO-1449*).

U.S. Patent No. 6,197,948 teaches isolated DNA molecules encoding a protein which comprises the amino acid sequence of SEQ ID NO:15 of instant application (see col. 146 claims 5-6, see attached PTO sequence search report 11/10/03).

Le Gall teaches an expression vector, pKVHG2+ encoding grapevine chrome mosaic neopovirus (GCMV) coat protein (page 162, col. 2, fig-1). The cited art further teaches introduction of pKVHG2+ expression vector into *Agrobacterium tumefaciens* host cells (page 162 col.2 sec. 2.2). The cited art further teaches genetic transformation of grapevine root stock embryonic cells with genetically modified *Agrobacterium tumefaciens* bacterial cells (page 163, col.1).

Thus it would have been obvious to one ordinary skill in the art at the time of filing to introduce the nucleotide sequences that encodes the amino acid sequences of SEQ ID NO:15 as taught by '948 in the expression vector and host cells of Le Gall who teaches a plant expression vector,

*Agrobacterium tumefaciens* and grapevine host cells. One would have been motivated to do so to produce recombinant protein encoded by SEQ ID NO:15. One would have a reasonable expectation of success since, cloning of a nucleotide sequence into an expression vector and transformation of bacterial and plant cells has been routine in the art. Thus the invention as claimed is *prima facie* obvious in view of cited prior art of record.

### Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sumesh Kaushal Ph.D. whose telephone number is 703-305-6838. The examiner can normally be reached on Mon-Fri. from 9AM-5PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Irem Yucel Ph.D. can be reached on 703-305-1998. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

*S. Kaushal*  
Patent examiner



JEFFREY FREDMAN  
PRIMARY EXAMINER